

Experimental Work to Yield Valuable Data

Vast Area to Become 'Show Case' for Soil Conservation Projects

Joliet arsenal, one of the major U. S. ammunition producing plants during World War II, is being utilized as a testing ground for soil conservation practices designed to increase productivity of available agriculture land.

The largest military land area in the middle west, the arsenal is scheduled to become a "conservation show case."

JOHN GALLOWAY, army engineer in the Chicago district, said yesterday that the arsenal is being transformed into a vast demonstration field with the amount of conservation practices being carried on and with the research station recently established on the land.

The army has four points in mind, he noted.

"First, is to get the land back into production; second, see that good farming practices are carried on; third, to reduce the maintenance costs, and fourth, to arrange fair rental rates. These practices could not be attained if it were not for the cooperation of the soil conservation service," Galloway said.

PLANS FOR the new north eastern Illinois soil experiment station, located near here in the Joliet arsenal area, were formulated recently by soil conservation service leaders.

District conservationists met with Dr. C. A. Van Dorn, head of the new research station, and discussed problems in farming the tight subsoil area that includes many counties. The new experiments will seek the best way of cropping that land to avoid undue runoff of water and loss of surface soil by erosion.

Thirteen small test fields, 11 by 30 feet, are to be laid out on a four percent slope, each field planted with a different rotation of crops.

LYSIMETER tanks will be located at the bottom of that slope to catch and measure all water flowing off the slope and to measure the silt washed from the slope by runoff water.

It is hoped that the experiments will result in information that will help answer farmer questions as to what are the best rotations and methods of farming to use in that tight soil, Dr. Van Dorn said.

The U. S. Department of Agriculture has granted a one year permit to the soil conservation service to use approximately 26 acres for experimental purposes in the arsenal area. No previous studies have been made to acquire such thorough information.

"HOW MUCH good will a clover catch crop do for the soil and just how far can the Illinois legume system be pressed as to other questions that need answers," Van Dorn added.

"Illinois farmers are being asked to seed more grasses and legumes in an effort to build the soil. Northeastern Illinois is considered a cash grain area. The general feeling is that until there is full utilization for hay and pastures, there will be considerable opposition to seeding more grasses where grain can still be grown.

"Livestock, or growing legumes for a seed crop, may be the answer. Since that area is primarily a cash grain region, the soil men are searching for methods to halt soil depletion on grain farms.

"SOILS IN the problem are Elliott, Swygert and Clarendon types. Those plastic till soils slowly permeable to water, are located in 18 Illinois counties and parts of Indiana and Wisconsin. The soil surface is dark colored and resembles the better types of soil surface found in the corn belt.

"It may be that legumes will increase the root channels enough to allow better drainage in these areas," Dr. Van Dorn commented.

Work in setting up the new station has been voluntary from farmers in different counties who are interested in finding out more about the plastic till soils. Farmers from Grundy, Kankakee, Illinois and Livingston counties have already given their help and other counties have requested to help.

DR. VAN DORN and Mino Silliman, of Kankakee, praise the army for its conservation work in the arsenal area. There are about 28,000 acres in the area and Col. R. C. Costabile, commanding officer, and Maj. L. Stayner, post engineers, have considerable land under tree-planting, in waterways and strip cropping. Several hundred more acres are scheduled to come in the conservation category next spring.

"In order to keep a strong agricultural program, research work must be carried out," Dr. Van Dorn stated. "Recently, research work has seemingly dwindled to certain extent. Public aid is needed to carry on this program that information may be obtained for the best farming method," he added.